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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Ichio YUDASAKA, Tatsuya SHIMODA, Sadao KANBE and Wakao MIYAZAWA

Application No.: 09/901,126

July 10, 2001 Filed:

Docket No.: 040090.02

THIN FILM DEVICE PROVIDED WITH COATING FILM, LIQUID CRYSTAL For: PANEL AND ELECTRONIC DEVICE, AND METHOD FOR MAKING THE THIN

FILM DEVICE

REQUEST FOR DECLARATION OF INTERFERENCE

Director of the U.S. Patent and Trademark Office Washington, D. C. 20231

Sir:

Applicants hereby respectfully request that an Interference be declared between the above-identified patent application and United States Patent No. 6,087,196 to Sturm et al. (hereinafter "Sturm"), attached to the Information Disclosure Statement filed on July 10, 2001.

Specifically, the Applicants request that an Interference be declared between claims 82, 83, and 111-113 of the present Application and claims 23-29 of Sturm.

Additionally, the Applicants propose that count 3 set forth in Appendices A and B, be made the count of the Interference. The count is numbered 3 to avoid confusion with other counts (numbered differently) of Interferences in Applicants' other Applications, in which corresponding Requests for Declaration of Interference and a Petition for Consolidation of Three Interferences are being concurrently filed.1

¹ United States Patent Applications with Serial Numbers 09/901,097 and 09/901,095 are the other Applications in which concurrent Requests for Declaration of Interference are being filed.

Moreover, the Applicants respectfully request that claims 82, 83, and 111-113 of the present Application and claims 23-29 of Sturm be designated as corresponding to count 3.

The Applicants note that claim 111 of the present Application corresponds exactly to count 3. Claim 23 of Sturm and claim 82 of the present Application are identical and both would have been obvious over count 3 (and count 3 is anticipated by them). Additionally, claim 23 of Sturm broadly recites the semiconducting polymer layer and has a scope encompassed by claim 112 of the present Application.

Claim 24 of Sturm and claim 83 of the present Application are identical and may suffer from 35 U.S.C. §112, second and fourth paragraph, problems, correcting which problems may yield claim 113 of the present Application.

Claims 25-29 of Sturm recite further features that would have been obvious over claim 23 of Sturm, which would make them obvious over count 3 and over claim 82 of this Application.

Attached Appendix A shows the support for features of claims 82, 83, and 111-113 in the present Application. Attached Appendix A also shows the support in Japanese Priority Document, JP 8-120653, filed in Japan on May 15, 1996, for proposed features recited in interference count 3. Attached Appendix B lays out the rationale for correspondence between count 3, claims 82, 83, and 111-113 of the present Application, and claims 23-29 of Sturm.

Furthermore, the Applicants respectfully request that the Examiner acknowledge in the Declaration of Interference Applicants' right to the benefit of PCT/JP 97/01618, filed May 14, 1997. Additionally, the Applicants respectfully request that the Examiner acknowledge in the Declaration of Interference Applicants' right to the benefit of their Japanese Priority Document, JP 8-120653, filed in Japan on May 15, 1996.

Applicants respectfully submit that all of the claims pending in this Application meet the requirements of 35 U.S.C. §135(b), and therefore satisfy 37 C.F.R. §1.607(a)(6), because

the preliminary amendment filed on July 10, 2001 (less than one year after issue date of Sturm) presented claims to the same subject matter as claims added after July 11, 2001.

In accordance with 37 C.F.R. §1.607(b), the Applicants respectfully request that examination of the present Application be conducted with special dispatch within the Patent and Trademark Office. Attention is respectfully directed to the Petition for Consolidation of Three Interferences, a copy of which is attached.

Should there be any questions concerning this communication, please telephone the undersigned at the number set forth below.

Respectfully submitted,

James A. Oliff Registration No. 27,075

Hrayr A. Sayadian Registration No. 46,491

JAO:HAS/tbh

Attachments:

Appendix A Appendix B Petition

Date: February 27, 2002

OLIFF & BERRIDGE, PLC P.O. Box 19928 Alexandria, Virginia 22320 Telephone: (703) 836-6400 DEPOSIT ACCOUNT USE
AUTHORIZATION
Please grant any extension
necessary for entry;
Charge any fee due to our
Deposit Account No. 15-0461

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Support in Priority Doc JP 8-120653	P24, ¶42 through page 26 ¶44 describes	the TFT and its components (by	reference to Figures 3 and 4, including	an insulating substrate 401, a gate	electrode 405, gate insulating film 404,	semiconducting channel region 403,	source contacts 403S, and drain contacts	403D), wherein the channel region is	formed from polymer silane having	various plural monomer units as the	material forming the polymer	semiconducting layer;	P39, ¶39 describes using ink-jetting to	form the channel and the insulating film.										
Support in 09/901,126	Fig. 38(B), P93, L1-4:	reverse stagger-type TFT.	Fig. 38(B), P93, L1-P94, L21:	- insulating substrate 410 and	protective underlayer 411.	- gate electrode 415.	 gate insulating film 413. 	 amorphous silicon film 417. 	- source/drain electrodes 431, 492.	P94, L22, P95, L4:	Semiconducting layer can be	formed of a coating film as in the	first embodiment.	P4142: using polymer silane having	various plural monomer units as	the material forming the	conductive layer, P58, L5-9: using	ink-jetting to deposit the material	forming the conductive layer.	Figs. 14-16; P56, L1-P59, L21:	Ink-jet printing also, applicable to the	silicon film forming the channel	region (region 14C between 14S and	14D in Fig. 10). See P58, L5-9.
Claims in 09/901,126	82. A process of forming thin	film field effect transistors	comprising the steps of:	forming a gate electrode on	a substrate;	forming a gate insulator	over said gate electrode;	forming a polymer	semiconducting layer on said	insulator by ink-jet printing; and	forming source and drain	contacts on said semiconducting	layer.											
Claim in 196 Patent	23. A process of forming thin	film field effect transistors	comprising the steps of:	forming a gate electrode on	a substrate;	forming a gate insulator	over said gate electrode;	fonning a polymer	semiconducting layer on said	insulator by ink-jet printing; and	forming source and drain	contacts on said semiconducting	layer.											
Count	Count 3. A process of forming	thin film field effect transistors	comprising the steps of:	forming a gate electrode on	a substrate;	forming a gale insulator	over said gate electrode;	forming a semiconducting	layer on said insulator by ink-jet	printing; and	forming source and drain	contacts on said semiconducting	layer.											

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Support in Priority Doc JP 8-120653						P24, ¶42 through page 26 ¶44 describes	the TFT and its components (by	reference to Figures 3 and 4, including	an insulating substrate 401, a gate	electrode 405, gate insulating film 404,	semiconducting channel region 403,	source contacts 403S, and drain contacts	403D), wherein the channel region is a	semiconductor formed from polymer	silanc having various plural monomer	units as the material forming the	semiconducting layer;	P39, ¶39 describes using ink-jetting to	form the channel and the insulating film.				
Support in 09/901,126	P94, L22-P95, L4; Figs. 14-16; and	P56, L1-P59, L2.				Fig. 38(B), P93, L1-4:	reverse stagger-type TFT.	Fig. 38(B), P93, L1-P94, L21:	- insulating substrate 410 and	protective underlayer 411.	- gate electrode 415.	- gate insulating film 413.	- amorphous silicon film 417.	- source/drain electrodes 431, 492.	P94, L22, P95, L4:	semiconducting layer can be	formed of a coating film as in the	first embodiment.	Figs. 14-16; P56, L1-P59, L21:	Ink-jet printing also, applicable to the	silicon film forming the channel	region (region 14C between 14S and	14D in Fig. 10). See P58, L5-9.
Claims in 09/901,126	83. The process of claim 82	wherein said gate insulator is	formed by ink-jet printing, and	the semiconducting layer by	other techniques.	111. A process of forming thin	film field effect transistors	comprising the steps of:	forming a gate electrode on	a substrate;	forming a gate insulator	over said gate electrode;	forming a semiconducting	laver on said insulator by ink-iet	printing: and	forming source and drain	contacts on said semiconducting	aver					
Claim in '196 Patent	24. The process of claim 23	wherein said gate insulator is	formed by ink-jet printing, and	the semiconducting layer by	other techniques.					•													
Count	3					Count 3. A process of forming	thin film field effect transistors	comprising the steps of:	forming a pate electrode on	a substrate.	forming a pate insulator	over said oate electrode:	forming a semicanducting	lower or early inenfator by ink-int	sayer on said mounts of the principle	forming course and drain	contents on said semiconducting		layer.				

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		<u> </u>
Support in Priority Doc JP 8-120653		
Support in 09/901,126	P41-42: using silane having various plural monomer units as the material forming the conductive layer; P58, L5-9: using ink-jetting to deposit the material forming the conductive layer.	P94, L22-P95, L4; Figs. 14-16; and P56, L1-P59, L2.
Claims in 09/901,126	wherein said formed semiconducting layer has a molecular structure containing plural monomer units.	113. The process of claim 82 wherein said gate insulator is formed by ink-jet printing.
Claim in '196 Patent		
Count		

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Rationale for Correspondence Between the Claims and the Count	Count 3 does not recite forming a polymer semiconducting layer on said insulator by ink-jet printing. However, it would have been obvious to replace the semiconducting layer by a polymer semiconducting layer to achieve stable and low voltage transistor operation in an inexpensive manner. See, e.g., Ebisawa (1983), and Japanese Unexamined Publication Nos. (JP-A) 62-311174 and 62-85224. See, also the abstract in Aratani 139 disclosing using organic thin films instead of semiconductors to achieve a stable, long life, and low voltage devices. Additionally, features of count 3 are anticipated by features of claim 23 of the '196 patent and claim 82 of this Application.
Rationale for Correspondence Between Claims of '196 Patent and the Claims in	Claim 82 of this Application is a copy of claim 23 of the '196 patent Claim 82 of this Application does not explicitly disclose forming a polymer semiconducting layer on said insulator by ink-jet printing. However, it would have been obvious to use a polymer semiconducting layer as the semiconducting layer to achieve stable and low voltage transistor operation. See, e.g., the abstract in Aratani '139 disclosing using organic thin film semiconducting layers instead of silicon semiconductors to achieve a stable, long life, and low voltage devices. Additionally, features of claim 82 of this Application are anticipated by features of claim 23 of the '196 patent.
Correspon d to count	e e
Chaims in 09/901,126	82. A process of forming thin field effect transistors comprising the steps of: forming a gate electrode on a substrate; forming a gate insulator over said gate electrode; forming a polymer semiconducting layer on said insulator by ink-jet printing; and forming source and drain contacts on said semiconducting layer.
Claims in '196 l'atent	53. A process of forming thin film field effect transistors comprising the steps of: forming a gate electrode on a substrate; forming a pate insulator over said gate electrode; forming a polymer semiconducting layer on said insulator by ink-jet printing; and forming source and drain contacts on said semiconducting layer.

Rationale for Correspondence Between the Claims and the Count	Count 3 does not recite forming the gate insulator by ink-jet printing. However, it would have been obvious to form the gate insulator using ink-jet printing. See, e.g., Drummon '248 disclosing ink-jet depositing various materials including insulators because the depositing by the ink-jet method is less expensive and simple, see, e.g., column 4, lines 40-55. Additionally, it would have been obvious to use ink-jet printing because the semiconducting layer is formed above the gate insulator and it would simplify the processing to use ink-jet printing to form both elements. Moreover, it would have been obvious to replace the semiconducting layer to achieve stable and low voltage transistor operation in an inexpensive manner. See, e.g., Ebisawa (1983), and Japanese Unexamined Publication Nos. (JP-A) 62-311174 and 62-85224. See, also the abstract in Aratani '139 disclosing using organic thin films instead of semiconductors to achieve a stable, long life, and low voltage devices.	Additionally, features of count 3 are anticipated by features of claim 24 of the '196 patent and claim 83 of this Application.
Rationale for Correspondence Between Claims of '196 Patent and the Claims in 09/901.126	Claim 83 of this Application is a copy of claim 24 of the '196 patent	
Correspon d to count No.	м .	
Claims in 09/901,126	83. The process of claim 82 wherein said gate insulator is formed by ink-jet printing, and the semiconducting layer by other techniques.	
Claims in '196 Patent	24. The process of claim 23 wherein said gate insulator is formed by tak-jet printing, and the semiconducting layer by other techniques.	

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Rationale for Correspondence Between the Claims and the Count	Claim 111 of this Application is a copy of Count 3.
Rationale for Correspondence Between Claims of '196 Patent and the Claims in 09/901,126	Claim 111 of this Application does not explicitly disclose forming a polymer semiconducting layer on said insulator by ink-jet printing. However, it would have been obvious to replace the semiconducting layer by a polymer semiconducting layer to achieve stable and low voltage transistor operation in an inexpensive manner. See, e.g., Ebisawa (1983), and lapanese Unexamined Publication Nos. (JP-A) 62-311174 and 62-85224. See, also the abstract in Aratani '139 disclosing using organic thin films instead of semiconductors to achieve a stable, long life, and low voltage devices. Additionally, features of claim 111 of this Application are anticipated by features of claim 23 of the '196 natent
Correspon d to count No.	£
Claims in 69/901,126	III. A process of forming thin film field effect transistors comprising the steps of: forming a gate electrode on a substrale; forming a gate insulator over said gate electrode; forming a semiconducting layer on said insulator by ink-jet printing; and forming source and drain contacts on said semiconducting layer.
Claims in '196 Patent	23. A process of forming thin field effect transistors comprising the steps of: forming a gate electrode on a substrate; forming a gate insulator over said gate electrode; forming a polymer semiconducting layer on said insulator by ink-jet printing; and forming source and drain contacts on said semiconducting layer.

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ween the			conducting	ig, wherein	molecular		ng of plural	ng of plural	ng of plural we been layer by a	ng of plural we been layer by a tructure	ng of plural we been layer by a tructure	ng of plural we been layer by a tructure ral w voltage	ng of plural we been layer by a tructure ral w voltage nanner.	ng of plural we been layer by a tructure ral w voltage nanner.	ng of plural we been layer by a tructure ral w voltage nanner.	ng of plural we been layer by a tructure ral w voltage nanner. ie 72-311174	ng of plural we been layer by a tructure ral w voltage nanner. ie 72-311174 Aratani	ng of plural we been layer by a tructure ral w voltage nanner. ie 72-311174 Aratani s instead of g life, and	ng of plural we been layer by a structure ral w voltage nanner. e 2-311174 Aratani s instead of g life, and	ng of plural we been layer by a tructure ral w voltage nanner. ie Aratani i instead of g life, and	ng of plural we been layer by a tructure ral w voltage nanner. ie 2-311174 Aratani sinstead of g life, and	ng of plural we been layer by a tructure ral w voltage nanner. ie 2-311174 Aratani i instead of g life, and ticipated by	ng of plural we been layer by a tructure ral w voltage nanner. ie 2-311174 Aratani sinstead of g life, and g life, and and claim
Rationale for Correspondence Between the	Claims and the Count		Count 3 does not recite forming a semiconducting	layer on said insulator by ink-jet printing, wherein	said formed semiconducting layer has a molecular	structure containing a polymer consisting of plural		anomer units. However, it would har	monomer units. However, it would have been obvious to replace the semiconducting layer by a	monomer units. However, it would have been obvious to replace the semiconducting layer by semiconducting layer has a molecular structure	monomer units. However, it would have obvious to replace the semiconducting la semiconducting layer has a molecular streontaining a polymer consisting of plural	monomer units. However, it would have been obvious to replace the semiconducting layer by a semiconducting layer has a molecular structure containing a polymer consisting of plural monomer units to achieve stable and low voltage	monomer units. However, it would have been obvious to replace the semiconducting layer by semiconducting layer has a molecular structur containing a polymer consisting of plural monomer units to achieve stable and low volt transistor operation in an inexpensive manner.	onomer units. However, it would havious to replace the semiconducting miconducting layer has a molecular somaining a polymer consisting of plu onomer units to achieve stable and lo ansistor operation in an inexpensive re, e.g., Ebisawa (1983), and Japanes	monomer units. However, it would have obvious to replace the semiconducting la semiconducting layer has a molecular strensiconducting layer has a molecular strensisting a polymer consisting of plura monomer units to achieve stable and low transistor operation in an inexpensive ma See, e.g., Ebisawa (1983), and Japanese Unexamined Publication Nos. (JP-A) 62	monomer units. However, it would have been obvious to replace the semiconducting layer by a semiconducting layer bas a molecular structure containing a polymer consisting of plural monomer units to achieve stable and low voltage transistor operation in an inexpensive manner. See, e.g., Ebisawa (1983), and Japanese Unexamined Publication Nos. (JP-A) 62-311174 and 62-85224. See, also the abstract in Aratani	monomer units. However, it would have been obvious to replace the semiconducting layer by semiconducting layer by semiconducting layer has a molecular structure containing a polymer consisting of plural monomer units to achieve stable and low voltagitansistor operation in an inexpensive manner. See, e.g., Ebisawa (1983), and Japanese Unexamined Publication Nos. (JP-A) 62-31117 and 62-85224. See, also the abstract in Aratani '139 disclosing using organic thin films instead	monomer units. However, it would have been obvious to replace the semiconducting layer by a semiconducting layer has a molecular structure containing a polymer consisting of plural monomer units to achieve stable and low voltage transistor operation in an inexpensive manner. See, e.g., Ebisawa (1983), and Japanese Unexamined Publication Nos. (JP-A) 62-311174 and 62-85224. See, also the abstract in Aratani '139 disclosing using organic thin films instead of semiconductors to achieve a stable, long life, and	monomer units. However, it would have been obvious to replace the semiconducting layer by a semiconducting layer bas a molecular structure containing a polymer consisting of plural monomer units to achieve stable and low voltage transistor operation in an inexpensive manner. See, e.g., Ebisawa (1983), and Japanese Unexamined Publication Nos, (JP-A) 62-311174 and 62-85224. See, also the abstract in Aratani '139 disclosing using organic thin films instead o semiconductors to achieve a stable, long life, and low voltage devices.	monomer units. However, it would have obvious to replace the semiconducting semiconducting layer has a molecular s containing a polymer consisting of plur monomer units to achieve stable and lo transistor operation in an inexpensive n See, e.g., Ebisawa (1983), and Japanes Unexamined Publication Nos. (JP-A) 6 and 62-85224. See, also the abstract in '139 disclosing using organic thin films semiconductors to achieve a stable, lon low voltage devices.	phomer units. However, it would have vious to replace the semiconducting miconducting layer has a molecular s ntaining a polymer consisting of plus onomer units to achieve stable and lo unsistor operation in an inexpensive n e, e.g., Ebisawa (1983), and Japanes nexamined Publication Nos. (JP-A) 6 d 62-85224. See, also the abstract in 39 disclosing using organic thin films miconductors to achieve a stable, lon w voltage devices.	monomer units. However, it would have been obvious to replace the semiconducting layer by a semiconducting layer has a molecular structure containing a polymer consisting of plural monomer units to achieve stable and low voltage transistor operation in an inexpensive manner. See, e.g., Ebisawa (1983), and Japanese Unexamined Publication Nos. (JP-A) 62-311174 and 62-85224. See, also the abstract in Aratani '139 disclosing using organic thin films instead of semiconductors to achieve a stable, long life, and low voltage devices. Additionally, features of count 3 are anticipated by	monomer units. However, it would have been obvious to replace the semiconducting layer by a semiconducting layer has a molecular structure containing a polymer consisting of plural monomer units to achieve stable and low voltage transistor operation in an inexpensive manner. See, e.g., Ebisawa (1983), and Japanese Unexamined Publication Nos. (JP-A) 62-311174 and 62-85224. See, also the abstract in Aratani '139 disclosing using organic thin films instead o semiconductors to achieve a stable, long life, and low voltage devices. Additionally, features of count 3 are anticipated features of claim 23 of the '196 patent and claim
• ····	Claims in	-			_		попош		obviou	obviou semice	obviou semico contai	obviou semico contair monor	obviou semico contair monon transis	obviou semico contair monon transis See, e.	obviou semico contair monon transis See, e.	obviou semico contair monon transis See, e. Unexa and 62	obviou semico contair monon transis See, e. Unexa and 62	obviou semico contair monon transis See, e. Unexa and 62 '139 di semico	obviou semico contair monon transis See, e. Unexa and 62 '139 di semico low vo	obviou semico contair monon transis See, e. Unexa and 62 '139 di semico low vo	obviou semico contair monon transis See, e., Unexa and 62 and 62 semico low vo	obviou semico contair monon transis See, e., Unexa and 62 '139 di semico low vo Additi	obviou semico contair monon transis See, e., Unexa and 62 '139 di semico low vo feature feature
Rationale for Correspondence Between	Claims of '196 Patent and the Claims in	09/901,126	The broad recitation of polymer in claim 23 of	the '196 patent makes claim 112 of this	Application anticipate claim 23 of the '196	versa.																	
Rationale for	Claims of '19		The broad recitat	the '196 patent m	Application antic	patent, and vise-versa.																•	
Correspon	d to count	No.	3																				
Claims in 09/901,126			112. The process of claim 111	wherein said formed	semiconducting layer has a	molecular structure containing	plural monomer units.																
Claims in '196 Patent																							
Claims													•	•	•	•	•	•	•	•	•	•	•

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Rationale for Correspondence Between the Claims and the Count	Count 3 does not recite forming the gate insulator by ink-jet printing. However, it would have been obvious to form the gate insulator using ink-jet printing. See, e.g., Drummon '248 disclosing ink-jet depositing various materials including insulators because the depositing by the ink-jet method is less expensive and simple, see, e.g., column 4, lines 40-55. Additionally, it would have been obvious to use ink-jet printing because the semiconducting layer is formed above the gate insulator and it would simplify the processing to use ink-jet printing to form both elements. Moreover, it would have been obvious to replace the semiconducting layer by a polymer seniconducting layer to achieve stable and low voltage transistor operation in an inexpensive manner. See, e.g., Ebisawa (1983), and Japanese Unexamined Publication Nos. (IP-A) 62-311174 and 62-85224. See, also the abstract in Aratani '139 disclosing using organic thin films instead of semiconductors to achieve a stable, long life, and low voltage devices.	Additionally, features of count 3 are anticipated by features of claim 113 of this Application.
Rationale for Correspondence Between Claims of '196 Patent and the Claims in 09/901,126	Claim 24 of the '196 patent may suffer 35 U.S.C. §112, second and fourth paragraphs, problems, correcting which problem may lead to a claim similar to claim 113 of the present Application.	
Correspon d to count No.	C 1	
Claims in 09/ 901,126	wherein said gate insulator is formed by ink-jet printing.	
Claims in '196 Patent		

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Claims in '196 Patent	Claims in 09/901,126	Correspon	Rationale for Correspondence Between	Rationale for Correspondence Between the
		d to count	Claims of '196 Patent and the Claims in	Claims and the Count
		No.	09/901,126	
25. The process of claim 23		m	The analysis above with respect to claim 23 of	It is notoriously well known practice in the
wherein the source and drain			the '196 patent is incorporated herein.	semiconductor processing art to perform as much
contacts are applied directly on			Additionally, it is notoriously well known	of the same processing together as possible to
the gate insulator before the			practice in the semiconductor processing art to	economize on wasteful process change
semiconducting layer is			perform as much of the same processing together	preparations. Consequently, it would have been
deposited.			as possible to economize on wasteful process	obvious to apply the source and drain before
,			change preparations. Consequently, it would	depositing the semiconducting layer.
			have been obvious to apply the source and drain	
			before depositing the semiconducting layer.	Additionally, features of count 3 are anticipated by
				features of claim 25 of the '196 patent.
			Additionally, features of claim 82 of this	
			Application are anticipated by features of claim	
			25 of the '196 patent.	
26. The process of claim 24		3	The analysis above with respect to claim 24 of	It is notoriously well known practice in the
wherein the source and drain			the '196 patent is incorporated herein.	semiconductor processing art to perform as much
contacts are applied directly on			Additionally, it is notoriously well known	of the same processing together as possible to
the gate insulator before the			practice in the semiconductor processing art to	econonize on wasteful process change
semiconducting layer is			perform as much of the same processing together	preparations. Consequently, it would have been
deposited.			as possible to economize on wasteful process	obvious to apply the source and drain before
			change preparations. Consequently, it would	depositing the semiconducting layer.
			have been obvious to apply the source and drain	
			before depositing the semiconducting layer.	Additionally, features of count 3 are anticipated by features of claim 26 of the "196 natent."
			Additionally, features of claim 83 of this	
- 11			Application are anticipated by features of claim	
			26 of the '196 natent	

27. The process of claim 23 wherein the semiconducting layer comprises a non- polymeric organic film or a polymer/small organic molecule blend.			Claims and the Count
27. The process of claim 23 wherein the semiconducting layer comprises a non- polymeric organic film or a polymer/small organic molecule blend.	No.	09/901,126	
wherein the semiconducting layer comprises a non- polymeric organic film or a polymer/small organic molecule blend.	3	The analysis above with respect to claim 23 of	Count 3 does not recite mixing a polymer with
layer comprises a non- polymeric organic film or a polymer/small organic molecule blend.		the '196 patent is incorporated herein.	other organic molecules. However, it is well
polymeric organic film or a polymer/small organic molecule blend.		Additionally, claim 82 of this Application does	known to use a blend of polymer with other
polymer/small organic molecule blend.		not explicitly disclose mixing a polymer with	organic molecules including dyes with small
blend.		other organic molecules. However, it is well	molecular structure, instead of separate layers, to
		known to use a blend of polymer with other	use a single deposition step and thus simplify the
		organic molecules including dyes with small	deposition process. See, e.g., Mori '489, column 3
		molecular structure, instead of separate layers, to	lines 22-46 and Example 1 in column 30 lines 54-
		use a single deposition step and thus simplify the	63, disclosing the use of blend of a polymer and a
		deposition process and produce electro-	small organic molecule; see also, e.g., Vestweber
		luminescent element exhibiting excellent	(1994), the second paragraph in section titled
		luminescence efficiency and brightness even at	Introduction on p. 141.
•		low voltage and low current density. See, e.g.,	
		Mori '489, col. 2, line 66, to col. 3, line 46 and	Additionally, features of count 3 are anticipated by
•		Example 1 in column 30 lines 54-63, disclosing	features claim 27 of the '196 patent.
		the use of blend of a polymer and a small organic	
		molecule; see also, e.g., Vestweber (1994), the	
		second paragraph in section titled Introduction	
		on p. 141, stating that polymer blends consisting	
		of a mixture of a charge transport component and	
		a polymeric binder offers the advantage of	
		combining easy spectral tuning by appropriate	
		selection of the active component with the	
		processibility and good mechanical properties of	
		molecules.	
		Addistractly Contract of claim 00 of this	
		Auditonally, leatures of claim 62 of this	
		Application are anticipated by features of claim	

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Rationale for Correspondence Between the	Claims and the Count	Count 3 does not recite mixing a polymer with	other organic molecules. However, it is well	known to use a blend of polymer with other	organic molecules including dyes with small	molecular structure, instead of separate layers, to	use a single deposition step and thus simplify the	deposition process. See, e.g., Mori '489, column 3	lines 22-46 and Example 1 in column 30 lines 54-	63, disclosing the use of blend of a polymer and a	small organic molecule; see also, e.g., Vestweber	(1994), the second paragraph in section titled	Introduction on p. 141.		Additionally, features of count 3 are anticipated by	features of claim 28 of the '196 patent.				
Rationale for Correspondence Between	Claims of '196 Patent and the Claims in	The analysis above with respect to claim 24 of	the '196 patent is incorporated herein.	Additionally, claim 83 of this Application does	not explicitly disclose mixing a polymer with	other organic molecules. However, it is well	known to use a blend of polymer with other	organic molecules including dyes with small	molecular structure, instead of separate layers, to	use a single deposition step and thus simplify the	deposition process. See, e.g., Mori '489, column	3 lines 22-46 and Example 1 in column 30 lines	54-63, disclosing the use of blend of a polymer	and a small organic molecule; see also, e.g.,	Vestweber (1994), the second paragraph in	section titled Introduction on p. 141.	Additionally features of alaim 22 of this	received at the colors of the colors of the	Application are anticipated by features of claim	38 of the '106 noten
Correspon	d to count	3																		
Claims in 09/901,126																				
Claims in '196 Patent		28. The process of claim 24	wherein the semiconducting	layer comprises a non-	polymeric organic film or a	polymer/small organic molecule	blend.													

age 8

Claims in '196 Patent	Claims in 09/901,126	Correspon	Rationale for Correspondence Between	Rationale for Correspondence Between the
		d to count	Cluims of '196 Patent and the Claims in	Claims and the Count
		No.	09/901,126	
29. The process of claim 25		3	The analysis above with respect to claim 25 of	Count 3 does not recite mixing a polymer with
wherein the semiconducting			the '196 patent is incorporated herein.	other organic molecules. However, it is well
layer comprises a non-			Additionally, claim 82 of this Application does	known to use a blend of polymer with other
polymeric organic film or a			not explicitly disclose mixing a polymer with	organic molecules including dyes with small
polymer/small organic molecule			other organic molecules. However, it is well	molecular structure, instead of separate layers, to
blend.			known to use a blend of polymer with other	use a single deposition step and thus simplify the
			organic molecules including dyes with small	deposition process. See, e.g., Mori '489, column 3
•			molecular structure, instead of separate layers, to	lines 22-46 and Example 1 in column 30 lines 54-
•			use a single deposition step and thus simplify the	63, disclosing the use of blend of a polymer and a
			deposition process. See, e.g., Mori '489, column	smail organic molecule; see also, e.g., Vestweber
			3 lines 22-46 and Example 1 in column 30 lines	(1994), the second paragraph in section titled
			54-63, disclosing the use of blend of a polymer	Introduction on p. 141.
			and a small organic molecule; see also, e.g.,	
			Vestweber (1994), the second paragraph in	Additionally, features of count 3 are anticipated by
			section titled Introduction on p. 141.	features of claim 29 of the '196 patent.
			Additionally, teatures of claim 82 of this	
			Application are anticipated by features of claim	
			29 of the '196 patent.	

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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Satoru MIYASHITA, Hiroshi KIGUCHI, Tatsuya SHIMODA and Sadao KANBE

Application No.: 09/901,097

Filed: July 10, 2001

2001 Docket No.: 101050.02

For: METHOD OF MANUFACTURING ORGANIC EL ELEMENT, ORGANIC EL

ELEMENT, AND ORGANIC EL DISPLAY DEVICE

PETITION FOR CONSOLIDATION OF THREE INTERFERENCES

Director of the U.S. Patent and Trademark Office Washington, D. C. 20231

Şir:

This is a petition under 37 C.F.R. §1.182 requesting that three requested interference proceedings be consolidated. Specifically, this Petition requests the consolidation of the interferences resulting from three Requests for Declaration of Interference, concurrently filed in the above-identified Application and co-pending United States Patent Applications having Serial Numbers 09/901,095 and 09/901,126, seeking the declaration of interference between the above mentioned three applications and United States Patent No. 6,087,196 to Sturm et al. (hereinafter "Sturm").

The Applicants respectfully submit that considerations of efficiency, uniformity, expense, and speed in prosecuting the interferences between the above-identified Applications and Sturm can best be satisfied by consolidating the three Requests for Declaration of Interference and collectively and concurrently prosecuting a single interference between Sturm and the above-identified Applications. See the preamble of 37 C.F.R. §1.601 defining a primary

good of the rules as being to secure the just, speedy, and inexpensive determination of every interference.

In each of the above-referenced Applications, a Request for Declaration of Interference with Sturm is filed.

Additionally, the above-referenced Applications and Sturm are directed to similar subject matter. Broadly speaking, the three Applications and Sturm disclose using ink-jet printing to form semiconducting devices including organic semiconducting elements or including polymeric elements. Indeed, Applications with Serial Numbers 09/901,097 and 09/901,095 include claims exactly, and claims substantially, corresponding to each of interference counts 1 and 2 with corresponding claims of Sturm.

Moreover, the above-identified Applications are assigned to a common assignee.

Accordingly, disputed issues between the three Applications and Sturm address similar subject matter between the same two parties.

Therefore, to efficiently, uniformly, and speedily prosecute the Interference between the above-identified Applications and Sturm, the Applicants respectfully request:

- (1) That the three Requests for Declaration of Interference be consolidated, and
- (2) That the resulting interference proceedings between Sturm and the above-referenced three Applications be consolidated.

Attached is our check no. 128238, in the amount of \$130.00, as the petition fee set forth in 37 C.F.R. §1.17(h). If any additional fees are necessary, the U.S. Patent and Trademark Office is authorized to debit Deposit Account No. 15-0461.

Respectfully submitted,

James A. Oliff Registration No. 27,075

Hrayr A. Sayadian Registration No. 46,491

JAO:HAS/tbh

Date: February 27, 2002

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